

2023-2040

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IN THE  
**UNITED STATES COURT OF APPEALS**  
**FOR THE FEDERAL CIRCUIT**

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SONOS, INC.,

*Appellant,*

v.

GOOGLE LLC,

*Appellee.*

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Appeal from the United States Patent and Trademark Office,  
Patent Trial and Appeal Board in No. IPR2021-01563

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**RESPONSE BRIEF OF APPELLEE GOOGLE LLC**

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## Claim Language at Issue

1. A method comprising:

. . . detecting, via the control device, a set of inputs to transfer playback from the control device to a particular playback device,

. . . wherein transferring playback from the control device to the particular playback device comprises:

(a) *causing one or more first cloud servers to add multimedia content to a local playback queue on the particular playback device*, wherein adding the multimedia content to the local playback queue comprises the one or more first cloud servers adding, to the local playback queue, one or more resource locators corresponding to respective locations of the multimedia content at one or more second cloud servers of a streaming content service; [and]

(b) *causing playback at the control device to be stopped . . . .*

9. The method of claim 1, wherein causing one or more first cloud servers to add the multimedia content to the local playback queue on the particular playback device comprises sending a message to the streaming content service that causes the one or more first cloud servers to add the multimedia content to the local playback queue on the particular playback device.

Appx104, 17:36-18:12 (emphases added); Appx105, 19:32-38.

## CERTIFICATE OF INTEREST

**Case Number:** 2023-2040

**Short Case Caption:** Sonos, Inc. v. Google LLC

**Filing Party/Entity:** Google LLC

### Instructions:

1. Complete each section of the form and select none or N/A if appropriate.
2. Please enter only one item per box; attach additional pages as needed, and check the box to indicate such pages are attached.
3. In answering Sections 2 and 3, be specific as to which represented entities the answers apply; lack of specificity may result in non-compliance.
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I certify the following information and any attached sheets are accurate and complete to the best of my knowledge.

Date: January 19, 2024

Signature: /s/ Daniel C. Tucker

Name: Daniel C. Tucker

<b>1. Represented Entities.</b> Fed. Cir. R. 47.4(a)(1).	<b>2. Real Party in Interest.</b> Fed. Cir. R. 47.4(a)(2).	<b>3. Parent Corporations and Stockholders.</b> Fed. Cir. R. 47.4(a)(3).
Provide the full names of all entities represented by undersigned counsel in this case.	Provide the full names of all real parties in interest for the entities. Do not list the real parties if they are the same as the entities.  <input checked="" type="checkbox"/> None/Not Applicable	Provide the full names of all parent corporations for the entities and all publicly held companies that own 10% or more stock in the entities.  <input type="checkbox"/> None/Not Applicable
Google LLC		XXVI Holdings Inc.
		Alphabet Inc.

☐ Additional pages attached

**4. Legal Representatives.** List all law firms, partners, and associates that (a) appeared for the entities in the originating court or agency or (b) are expected to appear in this court for the entities. Do not include those who have already entered an appearance in this court. Fed. Cir. R. 47.4(a)(4).

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**5. Related Cases.** Other than the originating case(s) for this case, are there related or prior cases that meet the criteria under Fed. Cir. R. 47.5(a)?

☒ Yes (file separate notice; see below) ☐ No ☐ N/A (amicus/movant)

If yes, concurrently file a separate Notice of Related Case Information that complies with Fed. Cir. R. 47.5(b). **Please do not duplicate information.** This separate Notice must only be filed with the first Certificate of Interest or, subsequently, if information changes during the pendency of the appeal. Fed. Cir. R. 47.5(b).

**6. Organizational Victims and Bankruptcy Cases.** Provide any information required under Fed. R. App. P. 26.1(b) (organizational victims in criminal cases) and 26.1(c) (bankruptcy case debtors and trustees). Fed. Cir. R. 47.4(a)(6).

☒ None/Not Applicable ☐ Additional pages attached

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## **STATEMENT OF RELATED CASES**

There have been no other appeals from the present Patent Trial and Appeal Board (“Board” or “PTAB”) action in this or any other appellate court.

The Northern District of California granted summary judgment that independent claim 13 of the patent at issue in this appeal (U.S. Patent No. 9,967,615 (“the ’615 patent”)) is invalid as obvious. *See Google LLC v. Sonos, Inc.*, No. 3:20-cv-06754 (N.D. Cal. Aug. 2, 2022), ECF No. 316. Sonos has appealed the invalidity ruling to this Court. *Sonos, Inc. v. Google LLC*, No. 2023-2040 (Fed. Cir.).

The ’615 patent is also at issue in *Sonos, Inc. v. Google LLC*, No. 3:21-cv-07559 (N.D. Cal.).

The two district court cases and appeal noted above may directly affect or be directly affected by this Court’s decision in this appeal.

## **I. Introduction**

Sonos does not dispute that the prior art as combined teaches each disputed limitation; it instead asserts that substantial evidence does not support a motivation to combine or modify the references. As demonstrated below, however, Google presented comprehensive evidence that a skilled artisan would have combined or modified the prior art references in the manner proposed. For each of the three claim limitations relevant to this appeal, the Board considered both parties' arguments and evidence, credited Google's, and rejected Sonos's. These are precisely the types of findings that the Court upholds for substantial evidence. *See, e.g., Shoes by Firebug LLC v. Stride Rite Children's Grp., LLC*, 962 F.3d 1362, 1369 (Fed. Cir. 2020) ("If two 'inconsistent conclusions may reasonably be drawn from the evidence in record, the PTAB's decision to favor one conclusion over the other is the epitome of a decision that must be sustained upon review for substantial evidence.'" (citation omitted)).

Two problems pervade Sonos's brief. First, Sonos failed to preserve most of its appellate arguments. For the first of Sonos's three arguments, it raises five sub-arguments, but it forfeited three of the five by never raising them below. *See infra* Sections V.B.2, V.B.3. Sonos likewise forfeited its entire second appellate argument regarding claim 9 by failing to raise below the sole argument it makes now. *See infra*

Section V.C.1. The Court can therefore dispose of almost two-thirds of Sonos's appeal based on forfeiture alone.

Second, all of Sonos's arguments challenge the Board's factual findings that are reviewed for substantial evidence, but Sonos ignores or discounts large swaths of the Board's supporting evidence. At their core, Sonos's arguments are simply disagreements with the Board's reasonable interpretation of the record. And even where Sonos points to other evidence supporting some of its theories, Sonos fails to fully grapple with the relevant evidence that supports the Board's findings. The Court should therefore affirm because substantial evidence supports the Board's factual findings for each of Sonos's challenges.

## **II. Statement of the Issues**

1. Does substantial evidence support the Board's finding that a skilled artisan would have combined Al-Shaykh and Qureshey to render obvious claim 1's step of "causing one or more first cloud servers to add multimedia content to a local playback queue on [a] particular playback device," when (a) Sonos forfeited the majority of its arguments regarding this limitation; and (b) the Board credited three independent reasons to support the combination, each backed by expert testimony and teachings from the references?

2. Does substantial evidence support the Board's determination that a skilled artisan would have combined Al-Shaykh and Qureshey to render obvious claim 9,

when (a) Sonos forfeited its entire appellate argument; and (b) the Board supported its findings with expert testimony and teachings from the references?

3. Does substantial evidence support the Board's determinations that Al-Shaykh alone or Al-Shaykh combined with Phillips renders obvious claim 1's step of "causing playback at the control device to be stopped," when (a) the Board, supported by Al-Shaykh and expert testimony, explained that Al-Shaykh teaches or renders obvious terminating playback at the control device upon transfer of playback; and (b) Phillips undisputedly teaches the limitation, and the Board credited three independent reasons for combining Phillips with Al-Shaykh?

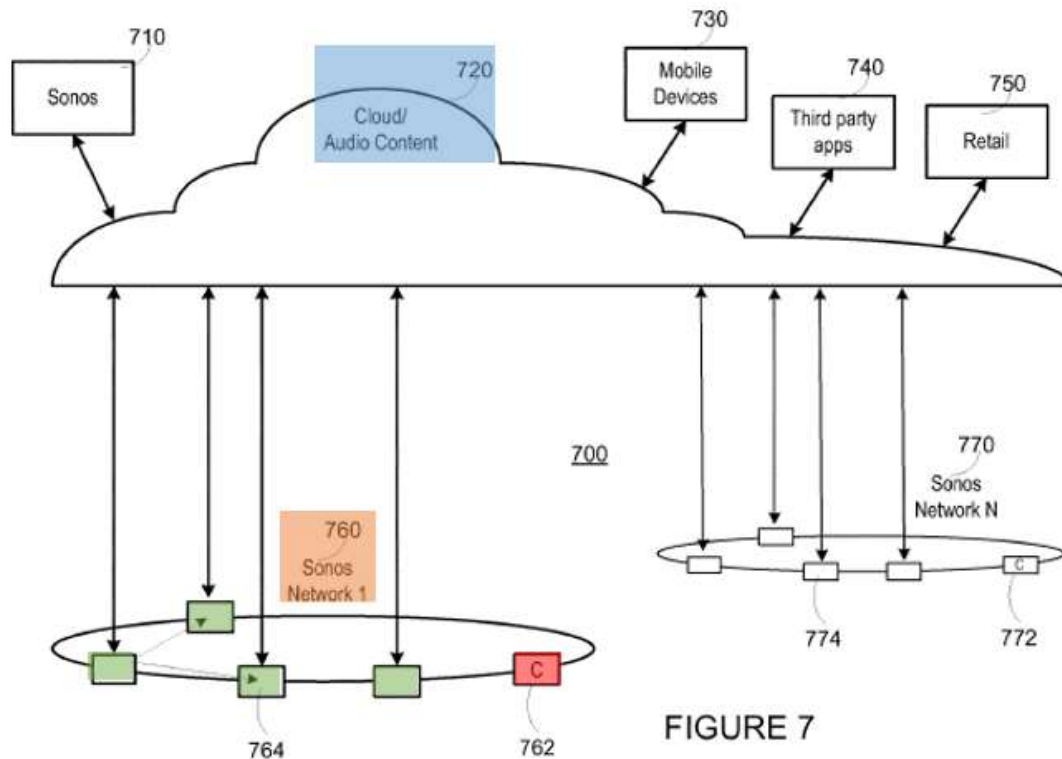
### **III. Counterstatement of the Case**

#### **A. Overview of the '615 patent**

Contrary to Sonos's assertion, nothing about the '615 patent was "[c]utting-[e]dge." Blue Br. 8-14. The '615 patent relies on a handful of conventional components—a "control device," "playback devices," a "local area network," and "cloud servers"—to achieve something equally conventional: transferring playback of multimedia content from a control device to a playback device. Appx104, 17:36-18:12 (claim 1); Appx3122 ¶ 64.

Figure 7 of the '615 patent shows these components arranged in a conventional manner, including the client device 762 and playback devices 764 connected via a local network 760 and connected to a cloud network 720 that

includes audio content and other components, such as “[t]hird party apps” 740 through which the devices can retrieve content:



Appx91, Fig. 7 (as annotated at Appx3122-3123 ¶ 65); *see* Appx101, 12:19-67.

Sonos contends that the '615 patent's point of novelty was its use of “two distinct types of remote [cloud] servers,” and that claim 1 transfers playback using “a carefully choreographed interplay” between the system devices and these two servers. Blue Br. 9-13. To the contrary, claim 1's steps for transferring playback are simple and well known, including those relevant to this appeal:

(a) a first cloud server adds multimedia content to the playback device's local queue by providing the playback device with a resource locator (e.g., a URL) for locating the content on the streaming service's server (the “second cloud server[.]”);



(b) the control device stops playback; and

(c) the playback device plays the content using the resource locator. Appx104, 17:36-18:12 (claim 1); Appx101, 12:44-67.

In essence, the '615 patent discloses transferring playback by having one server send the playback device a URL to fetch the content to be played from another server. Appx101, 12:44-67. As Google explained in its petition, this was not new, and the prior art disclosed or rendered obvious all limitations of the challenged claims. *See infra* Section III.B. Indeed, Sonos does not dispute that the combined prior art teaches all the limitations—it only challenges motivation to combine.

**B. Google’s petition and Dr. Bims’s supporting declaration demonstrated that the challenged claims were unpatentable in view of the prior art references.**

Two of Google’s asserted prior art grounds are relevant to this appeal:

(a) Al-Shaykh and Qureshey render obvious claims 1, 6-13, 18-25, and 27-29; and

(b) Al-Shaykh, Qureshey, and Phillips render obvious the same set of claims.<sup>1</sup> While Sonos disputed additional limitations below, its appeal challenges the Board’s findings regarding three limitations: (1) claim 1’s step of “causing one or more first cloud servers to add multimedia content to a local playback queue” in the form of resource locators; (2) claim 9’s step of “sending a message to the streaming content

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<sup>1</sup> Sonos does not independently challenge the Board’s findings that dependent claims 2 and 14 are unpatentable based on additional grounds. Appx76.

service that causes the one or more first cloud servers to add the multimedia content to the local playback queue”; and (3) claim 1’s step of “causing playback at the control device to be stopped.” Blue Br. 25-26, 44-83; Appx104, 17:36-18:12 (claim 1); Appx105, 19:32-38 (claim 9).

**1. Google and Dr. Bims demonstrated that Al-Shaykh and Qureshey render obvious the first two claim limitations relevant to the appeal.**

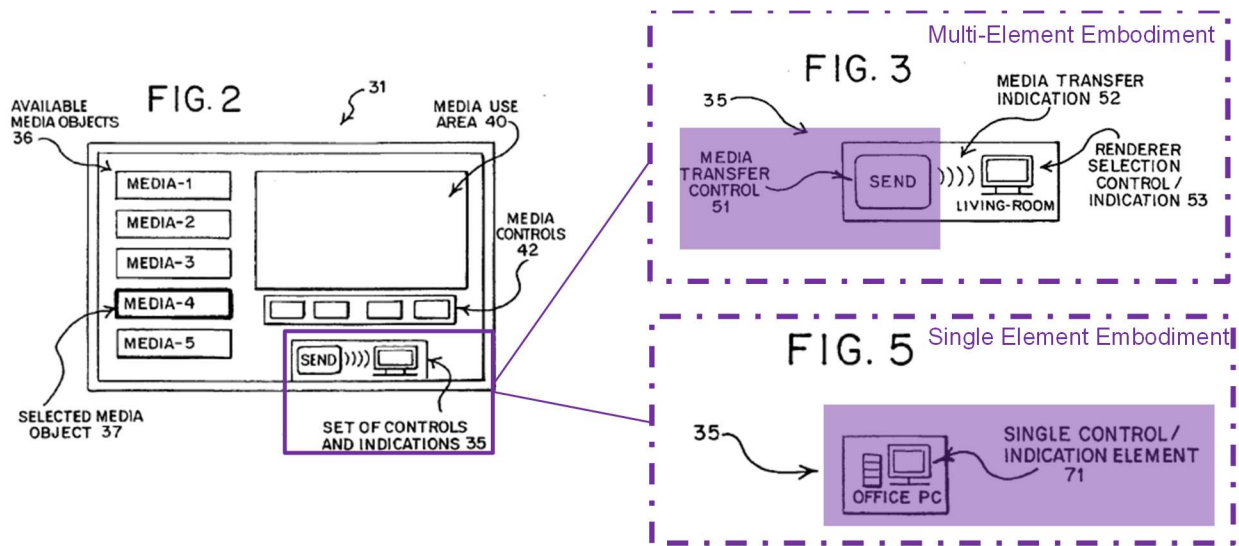
Google and Dr. Bims demonstrated that Al-Shaykh and Qureshey render obvious (1) claim 1’s step of “causing one or more first cloud servers to add multimedia content to a local playback queue” in the form of resource locators; and (2) claim 9’s step of “sending a message to the streaming content service that causes the one or more first cloud servers to add the multimedia content to the local playback queue.” Appx146-152; Appx173. Summaries of each reference and their combination follow.

**a. Al-Shaykh**

Like the ’615 patent, Al-Shaykh discloses a networked playback system in which a user can transfer playback from a mobile control device to one or more rendering (or playback) devices (e.g., stereo, speaker, television, computer, etc.) on a home network. Appx3284 ¶¶ 77-78, 81; Appx3279 ¶ 2; Appx3274, Fig. 1.

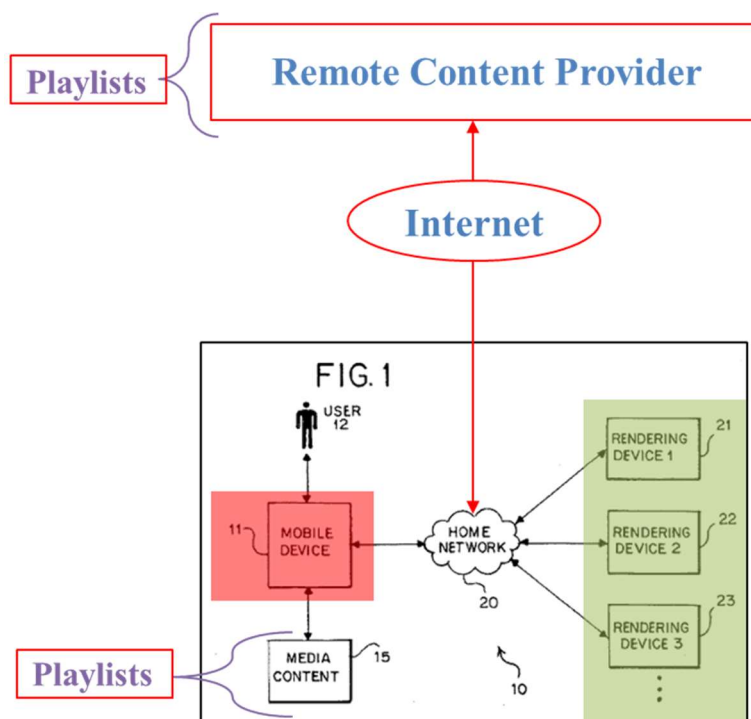
Al-Shaykh explains that a user transfers playback by providing a playback transfer input via a set of controls on the mobile device’s service-specific “media

application,” as shown in the annotated figures below. Appx3285 ¶¶ 85, 89; Appx3286 ¶ 92; Appx3279 ¶ 6; Appx3274, Fig. 2. The mobile device has access to a remote content service that includes media content. Appx3286 ¶ 95; Appx3279 ¶ 6. Dr. Bims’s unchallenged testimony explained that the user’s inputs to the service-specific media application on the mobile device result in messages being sent to the “remote content service.” Appx3169 ¶ 151.



Appx3274-3275, Figs. 2, 3, 5 (as annotated at Appx3136 ¶ 88).

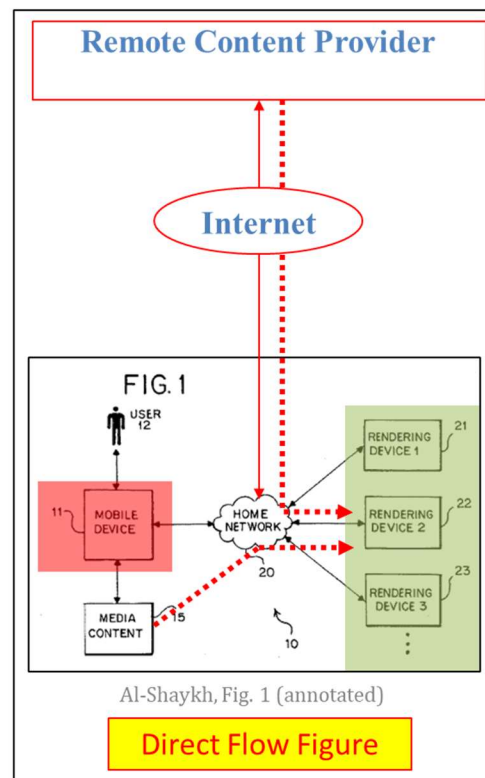
Like the '615 patent, Al-Shaykh discloses retrieving media content over the Internet. For example, Al-Shaykh discloses three sources where the content for playback is stored: (i) locally on the mobile device, (ii) locally on the “media content server 15,” and (iii) remotely on the “remote content provider.” Appx3284 ¶ 82, Appx3281 ¶ 20; *see also* Appx4549-4551.



Appx3274, Fig. 1 (as annotated at Appx4548); Appx3284 ¶ 82. Thus, the playback devices can play content that is stored either locally (i.e., content at the mobile device or at the media content server) or remotely (i.e., content at the remote content provider retrieved via the Internet). Appx3284 ¶¶ 80-81; Appx3286 ¶¶ 94, 96; Appx3274, Fig. 1.

Sonos agrees that Al-Shaykh discloses retrieving remote content, but alleges that in this scenario, the content must flow through the mobile device. Blue Br. 25. Dr. Bims, however, explained that Sonos is wrong, and that “Al-Shaykh discloses that the particular rendering device can directly retrieve media content to play[]back without the media content originating from or flowing through the mobile device 11.” Appx3157-3158 ¶ 128. Al-Shaykh discloses precisely this, explaining that “if

the ‘media [content]’ . . . is not stored locally on the mobile device 11, the media content may or *may not* flow through the mobile device 11” when playback is transferred to the playback device. Appx3286 ¶ 94 (emphasis added). The annotated figure below shows how Al-Shaykh’s rendering (or playback) devices retrieve content directly from the remote content provider, without going through the mobile device:



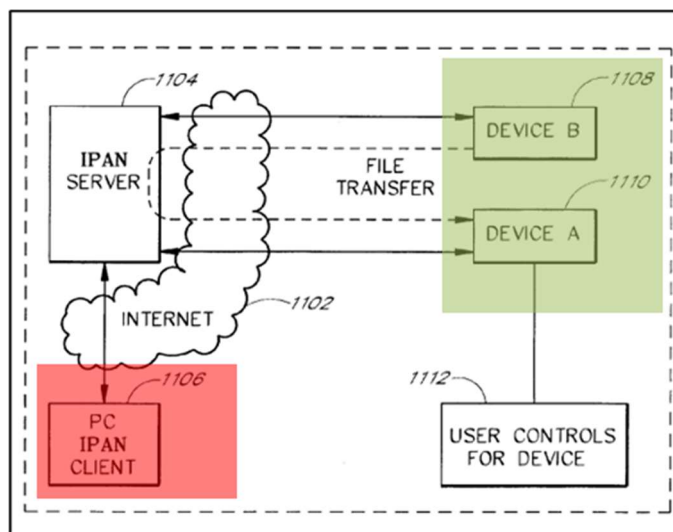
Appx3274, Fig. 1 (as annotated at Appx4551).

As Dr. Bims also explained, while Al-Shaykh discloses playback devices directly retrieving content from the remote content provider, it fails to provide specific details on the back-end functionality needed to facilitate this transaction.

Appx3146 ¶ 102. Thus, a skilled artisan would have been motivated to seek other references to understand what back-end functionality is needed. *Id.*

**b. Qureshey**

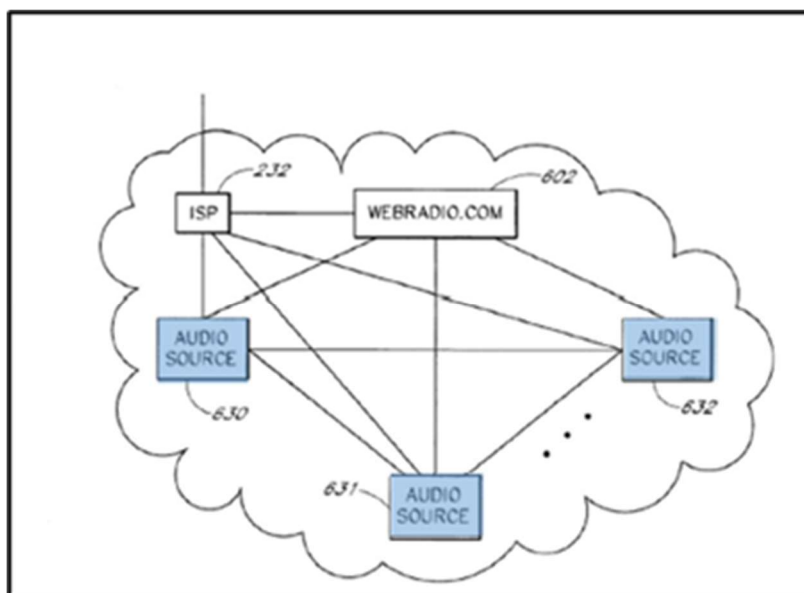
Qureshey similarly discloses a networked playback system containing a PC control device (PC IPAN client 1106), multiple network-enabled audio devices (devices 1108, 1110), and a cloud-based server (IPAN server 1104) as shown below. Appx3314, Fig. 11; Appx3357-3358, 16:56-17:31; *see also* Appx3320, Fig. 15. Qureshey also discloses that its devices connect to both a local area (i.e., home) network and the Internet. Appx3350-3351, 2:58-3:4, 3:57-4:3; Appx3357-3358, 16:29-17:31; Appx3364, 30:19-26. The home network connection allows devices in the home network to communicate “instantaneously.” Appx3364, 30:19-26.<sup>2</sup>



<sup>2</sup> Sonos is thus incorrect in contending that Qureshey’s system “avoided relying on a home network.” Blue Br. 19.

Appx3314, Fig. 11 (as annotated at Appx4552).

Like the '615 patent and Al-Shaykh, Qureshey's playback devices directly retrieve content from remote audio sources via the Internet. Appx3356, 14:32-47 (noting that "[playback device] 100 makes a 'direct' connection to the [web] site" to receive "audio data" using the Internet); Appx3309, Fig. 6B (reproduced below); *see also* Appx3366, 34:6-35; Appx3367, 35:42-45 (playback devices "play[]back . . . audio content from the plurality of additional content sources"); Appx3350, 2:40-46; Appx3351, 4:62-64; Appx39-40.



Appx3309, Fig. 6B (as annotated at Appx3142 ¶ 97).

Moreover, as Dr. Bims explained, Qureshey supplements Al-Shaykh's teaching by providing additional details on the back-end functionality that enables playback devices to directly retrieve content from remote sources. Appx3146 ¶ 102. For example, like the '615 patent, Qureshey discloses a cloud-based IPAN server

that enables the playback devices to retrieve media content for playback from various remote sources. *See* Appx3141-3144 ¶¶ 96-99. Qureshey’s IPAN server stores music playlists that include a URL for each song, indicating the location from which the audio file associated with the song can be retrieved. Appx3360, 22:36-45; Appx3367, 35:38-51. The user can send the playlist of URLs to a playback device by pressing a synchronize button on the client-side interface. Appx3361, 23:28-32, 24:25-28.<sup>3</sup> This input causes the IPAN server to add the playlist to the playback device. Appx3361, 24:17-30; Appx3367, 35:61-36:3 (explaining that the playback “electronic device” receives a playlist and information from the IPAN “central system” that identifies songs and enables the device to obtain the songs); Appx3143-3145 ¶¶ 98-100. The playback device then obtains the songs from the URLs in the playlist and plays the audio content indicated by the playlist. Appx3360, 22:50-53; Appx3367, 35:65-36:3; *see* Appx3143-3145 ¶¶ 99-100.

**c. Combining Al-Shaykh and Qureshey**

Dr. Bims explained that a skilled artisan would have incorporated Qureshey’s IPAN server and back-end functionality into Al-Shaykh to facilitate Al-Shaykh’s

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<sup>3</sup> Sonos incorrectly alleges that the user can only send the playlist by interacting with the playback device’s interface, and not with the client-side interface. Blue Br. 60; *see also* Blue Br. 18-19. This is clearly wrong, because Qureshey explains that the synchronize button 1718 shown in Figure 17 can be “display[ed] on the user’s PC in a web browser.” Appx3361, 23:28-40.



playback devices directly retrieving remote content. Appx3145-3147 ¶¶ 101-103. In this combination, when a user provides a set of inputs to transfer playback from the mobile device to a playback device (as disclosed in Al-Shaykh), then the system causes a first cloud server (i.e., Qureshey's IPAN server) to add URLs to the playback device (as disclosed in Qureshey). Appx3145 ¶ 101. As Qureshey discloses, those URLs are associated with the remote locations of audio files allowing the playback devices to retrieve and play back these files. *See supra* Section III.B.1.b. During this process, and relevant to claim 9, Dr. Bims also explained that when the user provides the set of inputs for transfer, a message is sent to the remote content service that causes the first cloud server (IPAN server) to add the playlist of URLs to the playback device. Appx3169 ¶ 151.

Dr. Bims provided three reasons why a skilled artisan would have been motivated to combine Al-Shaykh and Qureshey to achieve the claimed functionality. Appx3125-3129 ¶¶ 71-78; Appx3146-3147 ¶¶ 102-103. First, Dr. Bims identified similarities between Al-Shaykh and Qureshey including that both references (a) enable users to play back content on system devices from the Internet, Appx3125-3126 ¶ 72; (b) describe similar networked media playback systems that include a control device and one or more rendering devices that are often used in homes or offices, Appx3126-3127 ¶ 73; (c) include GUIs on their control devices that allow the user to manage content to play on the playback device, Appx3128

¶ 75; and (d) describe related mechanisms for adding metadata associated with media content to the playback devices, Appx3128-3129 ¶ 76. He also listed multiple benefits that both systems provided: both systems allow users greater flexibility to access and play content from the Internet and on various device configurations for different scenarios, as well as mix expensive control devices, such as PCs, with low-cost devices, such as rendering devices. Appx3125-3128 ¶¶ 72-74 (citing disclosures from Al-Shaykh and Qureshey that support these benefits). This improves on traditional systems that only played locally stored content in limited device configurations and required multiple expensive control devices. *Id.*

Next, Dr. Bims identified two specific reasons to combine Al-Shaykh and Qureshey in the manner Google proposed. He first noted that a skilled artisan would have been motivated to incorporate Qureshey's back-end server functionality (e.g., its IPAN server) into Al-Shaykh's system because Al-Shaykh discloses that playback devices "can directly retrieve media content from a remote server for playback but Al-Shaykh does not explain the details on the back-end functionality that facilitates this transaction." Appx3146-3147 ¶¶ 102-103. Thus, a skilled artisan would have looked to similar references, such as Qureshey, to determine how Al-Shaykh's playback devices could directly retrieve content from remote sources. *Id.* In doing so, Dr. Bims explained that the skilled artisan would have determined

to use Qureshey's IPAN server to facilitate Al-Shaykh's playback devices directly retrieving media content from a remote server. *Id.*

Lastly, Dr. Bims opined that incorporating Qureshey's IPAN server into Al-Shaykh's system would improve the system by preventing any disconnection or failures on the control device from impacting ongoing playback on the playback device. Appx3146-3147 ¶ 103. This benefit is achieved because the combined system stores URLs on the playback device and, thus, the playback device does not rely on an active connection or content stream from the control device. *Id.*

**2. Google and Dr. Bims demonstrated that Al-Shaykh alone or Al-Shaykh in view of Phillips renders obvious the third claim limitation relevant to the appeal.**

The remaining limitation relevant to this appeal specifies that transferring playback to the playback device includes "causing playback at the control device to be stopped." Blue Br. 73-83. Google and Dr. Bims explained that Al-Shaykh alone or Al-Shaykh combined with Phillips renders this limitation obvious. Appx153-158; Appx3147-3154 ¶¶ 104-120.

Regarding Al-Shaykh alone, Dr. Bims explained that in Al-Shaykh, the initial device terminates playback when playback is transferred to a new device. Appx3147-3148 ¶¶ 104-106 (citing Appx3293 ¶¶ 156-157; Appx3294 ¶¶ 166-167; Appx3295 ¶¶ 173-174). Al-Shaykh discloses two examples of ceasing playback after transfer. First, when a user transfers playback from a first playback device to a

second playback device, playback at the first device stops and playback at the second playback device begins. Appx3293 ¶ 156; Appx3294 ¶ 166; Appx3295 ¶ 173. Second, when a user transfers playback from the playback device to the mobile device, playback at the playback device stops. Appx3293 ¶ 157; Appx3294 ¶ 167; Appx3295 ¶ 174. Dr. Bims explained that a skilled artisan, having read Al-Shaykh’s disclosures, would have understood that transferring playback from the mobile device to the playback device would similarly cause the mobile device to stop playback, or that it would have been obvious to do so. Appx3147-3148 ¶¶ 105-106 (concluding that “Al-Shaykh discloses the functionality required to stop playback at the mobile device when playback is transferred”); *see also* Appx3147-3148 ¶ 105 (noting that this conclusion is consistent with an advantage of Al-Shaykh that enables users to “start and stop *external* [media] rendering” using the mobile device (emphasis added) (quoting Appx3282)).

Regarding the Al-Shaykh-Phillips combination, Sonos has never disputed that Phillips discloses this limitation. *See* Appx49 (“Patent Owner does not dispute that Phillips teaches this limitation.”); Blue Br. 81-83. Nor could it because Phillips discloses that, when playback is transferred to the rendering device, playback at the mobile device is “terminated.” Appx3264, 3:18-61; Appx3266, 7:29-42; Appx3268, 11:19-33.

Dr. Bims explained that a skilled artisan would have incorporated Phillips's playback termination functionality to stop playback at Al-Shaykh's control device after playback is transferred to the playback device. Appx3148-3154 ¶¶ 107-120. In this combination, when a user provides a set of inputs to transfer playback from the mobile device to a playback device (as disclosed in Al-Shaykh), then playback at the mobile device terminates (as disclosed in Phillips). *Id.*

Dr. Bims provided several reasons why a skilled artisan would have been motivated to combine Al-Shaykh and Phillips to achieve the claimed functionality. Appx3151-3154 ¶¶ 116-120. First, Dr. Bims identified similarities between Al-Shaykh and Qureshey, including that both references (a) enable users to transfer playback to various devices and play back content on those devices from the Internet, Appx3151-3152 ¶ 116; (b) describe similar networked media playback systems that are often used in homes and offices and include a control device and one or more rendering devices, Appx3152-3153 ¶ 117; (c) provide users with greater flexibility to access and play content from the Internet, improving on traditional systems that were limited to playing locally stored content, Appx3151-3152 ¶ 116; (d) provide users with greater flexibility to access and play content on various device configurations for different scenarios, Appx3152-3153 ¶ 117; and (e) provide cost-effective media playback systems that mix expensive control devices with low-cost devices, such as rendering devices, Appx3153 ¶ 118.

Next, Dr. Bims provided two specific reasons to combine Al-Shaykh and Phillips in the proposed manner. He first noted that, to the extent Sonos argued that Al-Shaykh does not expressly disclose terminating playback at the control device, Phillips provides additional detail regarding “what occurs at the mobile device when playback is transferred to a rendering device.” Appx3153-3154 ¶ 119. Thus, a skilled artisan would have looked for similar references, such as Phillips, to determine what happens at Al-Shaykh’s control device when playback is transferred to playback devices. *Id.*

Lastly, Dr. Bims noted that a skilled artisan would have been motivated to make the combination because terminating playback, as taught by Phillips, would improve the overall system by allowing users to perform other tasks on their mobile phone while playback continues on the playback device. *Id.*

**C. In its final written decision, the Board credited Google’s evidence and found the claims unpatentable.**

After a full trial, Board determined that Google had shown by a preponderance of the evidence that all challenged claims were unpatentable. Appx76. As discussed below, the Board credited Google’s argument and evidence regarding each of the three disputes relevant to this appeal.

**1. The Board determined that a skilled artisan would have been motivated to modify Al-Shaykh’s system to incorporate Qureshey’s IPAN server.**

For the first disputed limitation—“causing one or more first cloud servers to add multimedia content to a local playback queue on the particular playback device”—the Board adopted Google’s reasons why a skilled artisan “would have been motivated to combine the relevant teachings of Al-Shaykh and Qureshey by providing specific reasoning based on facts in the record and logic.” Appx40-42. In doing so, the Board agreed that the references “are in the same field of endeavor, deal with similar devices, and are directed to solving the same problems in those devices.” Appx40-41 (quoting Appx132); Appx42-43. The Board also determined that, because Al-Shaykh discloses playback devices directly retrieving remote content but fails to explain the details on the back-end functionality to facilitate this transaction, a skilled artisan would have been motivated to consult references, like Qureshey, to determine how playback devices can perform this functionality. Appx41, 43. And the Board affirmatively cited Dr. Bims’s testimony that adding “Qureshey’s back-end server functionality” would “improve the system by preventing any disconnection or failure of a mobile control device to impact ongoing playback on the rendering device.” Appx41 (quoting Appx152 (citing Appx3146-3147 ¶ 103)). In support of these findings, the Board cited Dr. Bims’s testimony and disclosures from the references themselves. Appx41 (quoting Appx152 (citing

Appx3146 ¶¶ 102-103)); Appx42 (citing Appx3125 ¶¶ 72-77 and supporting disclosures from Al-Shaykh and Qureshey).

**2. The Board determined that Al-Shaykh and Qureshey render obvious the disputed limitation in claim 9.**

The Board also found that the Al-Shaykh-Qureshey combination renders claim 9 unpatentable as obvious. Appx64-66. Notably, Sonos did not present to the Board any motivation-to-combine arguments regarding claim 9. Appx419-420. Instead, it only argued that Al-Shaykh did not teach the claimed “message.” Appx419-420. The Board considered the argument Sonos did make and found it unpersuasive. Appx65-66. In doing so, the Board credited Dr. Bims’s testimony and found that Google’s “arguments and evidence on this issue are well-supported by Al-Shaykh.” Appx66 (citing Appx3169 ¶ 151; Appx3279 ¶ 6; Appx3285 ¶ 90; Appx3286 ¶ 95) (finding that “all the elements of claim 9 are taught by the cited art” and “claim 9 is unpatentable as obvious in view of” Al-Shaykh and Qureshey).

**3. The Board found that Al-Shaykh alone or the Al-Shaykh-Phillips combination rendered obvious stopping playback at the control device.**

Regarding the third disputed limitation, the Board credited Dr. Bims’s testimony and Al-Shaykh’s supporting disclosures showing that a skilled artisan would have understood Al-Shaykh to disclose or render obvious “that a mobile device stops playback when playback is transferred to the particular rendering device.” Appx45-46 (quoting Appx154); Appx48-49 (quoting Appx3147-3148



¶¶ 104-106 (citing Appx3283 ¶ 53; Appx3286 ¶ 93; Appx3287 ¶ 100; Appx3293 ¶¶ 156-157; Appx3294 ¶¶ 166-167; Appx3295 ¶¶ 173-174)). Based on this evidence, the Board concluded that, “when the media content is transferred to a new rendering device,” “Al-Shaykh stops rendering of the media content on the device currently rendering the media content.” Appx48.

The Board also approvingly cited Dr. Bims’s testimony regarding Al-Shaykh’s two supporting examples. Appx49 (quoting Appx3148 ¶ 106). First, when a user transfers playback from a first playback device to a second playback device, playback at the first device stops and playback at the second playback device begins. Appx3293 ¶ 156; Appx3294 ¶ 166; Appx3295 ¶ 173. Second, when a user transfers playback from the playback device to the mobile device, playback at the playback device stops. Appx3293 ¶ 157; Appx3294 ¶ 167; Appx3295 ¶ 174. The Board then credited Dr. Bims’s testimony that, based on the functionality disclosed in the above-noted portions of Al-Shaykh, a skilled artisan would have found it obvious to stop playback at the mobile device when playback is transferred to the playback device. Appx49 (quoting Appx3148 ¶ 106).

As part of its analysis, the Board rejected Sonos’s interpretation that paragraph 132 of Al-Shaykh teaches the “‘mobile device’ begin[ning] (and/or resum[ing]) rendering [of] the ‘media content’ *after* transferring the ‘media content.’” Appx46-48 (emphasis added) (quoting Appx3290 ¶ 132). The Board

explained that paragraph 132 disclosed the exact opposite, i.e., that when playback transfer is enabled, “the mobile device continues or begins rendering the media content *and then* transfers the media content to the target rendering device where it continues to be rendered.” Appx47-48 (emphasis added).

Regarding the Al-Shaykh-Phillips combination, the Board first noted that Sonos “does not dispute that Phillips teaches this limitation.” Appx49. It then considered and credited Google’s reasons why a skilled artisan would have been motivated to combine Al-Shaykh and Phillips. Appx49-52. It agreed that the references “are in the same field of endeavor, deal with similar devices, and are directed to solving the same problems in those devices.” Appx49-51 (quoting Appx155-157 (citing Appx3151-3153 ¶¶ 115-118; Appx3261, Fig. 11; Appx3263, 1:19-34; Appx3264, 3:18-42; Appx3273, Abstract; Appx3279 ¶¶ 4-5; Appx3283 ¶ 53; Appx3284 ¶ 78; Appx3285 ¶ 90)). The Board also determined that a skilled artisan would have looked to similar references, such as Phillips, to understand what occurs at Al-Shaykh’s mobile device when playback is transferred to a playback device. Appx51 (quoting Appx157-158 (citing Appx3153-3154 ¶¶ 119-120; Appx3266, 7:28-42; Appx3280 ¶ 15; Appx3286 ¶¶ 94, 97)). Lastly, the Board agreed that the combination improved the system, because incorporating Phillips’s playback termination functionality into Al-Shaykh allows users more flexibility to perform other tasks on their mobile phone while playback continues on the rendering

device. Appx50-51 (quoting Appx157-158 (citing Appx3153-3154 ¶¶ 119-120; Appx3266, 7:28-42; Appx3280 ¶ 15; Appx3286 ¶¶ 94, 97)); Appx50 (quoting Appx157 (citing Appx3263, 1:19-34; Appx3283 ¶ 53)); Appx51 (quoting Appx157 (citing Appx3279 ¶ 4)).

#### **IV. Summary of the Argument**

I. Substantial evidence supports the Board's finding that a skilled artisan would have been motivated to combine Al-Shaykh and Qureshey, including incorporating Qureshey's IPAN server into Al-Shaykh's system. Specifically, the Board credited Google's comprehensive evidence supporting three reasons for this combination: (1) both references deal with similar devices and solve similar problems in those devices, and there is a motivation to combine when a known technique has been used to improve one device and a skilled artisan would know it could improve similar devices; (2) Qureshey provides additional details omitted from Al-Shaykh for a playback device directly retrieving media content from a remote server, and a skilled artisan would have been motivated to look to Qureshey for these additional details; and (3) incorporating Qureshey's IPAN server functionality would improve the robustness of playback at the playback device, particularly if there were problems with the mobile device. *See infra* Section V.B.1. This substantial evidence is far more than sufficient to affirm the Board's finding.

Sonos first alleges that the Board erred in finding that a skilled artisan would have considered Qureshey *at all*. Blue Br. 44-57. Sonos raises four sub-arguments here regarding alleged differences between Al-Shaykh and Qureshey that would purportedly thwart the combination. *Id.* Sonos never made the first two of these arguments to the Board and thus forfeited them. *See infra* Section V.B.2. Moreover, all four arguments fail on the merits because they largely ignore or discount the substantial evidence supporting the combination and the similarities between the references, simply represent disagreements with the Board’s reasonable interpretation of the references, or focus on alleged differences between the references that are irrelevant to the combination. *See id.*

Sonos also alleges that the Board erred in finding that a skilled artisan would have added Qureshey’s IPAN server to Al-Shaykh’s system because, according to Sonos, the two references include “bedrock technological differences” stemming from their different time periods and use of home networking. Blue Br. 58-65. Sonos also never argued this to the Board, and therefore it forfeited this argument as well. *See infra* Section V.B.3. Sonos’s argument also fails on the merits because it rests on fundamental misunderstandings of what the references teach and how Google and the Board combined them. *See id.*

II. Substantial evidence also supports the Board’s finding that one skilled in the art would have combined Al-Shaykh and Qureshey to render obvious claim 9.

Sonos’s only appellate challenge is that there is no motivation to combine the two references. Blue Br. 65-72. Again, Sonos did not make this argument below; instead, it argued only that Al-Shaykh failed to disclose the recited “message.” *See infra* Section V.C.1 (citing Appx419-420). Sonos has thus forfeited its entire appellate argument. *See id.*

If the Court reaches the merits, it should still affirm because substantial evidence—including Dr. Bims’s testimony and disclosures from Al-Shaykh and Qureshey—supports the Board’s findings regarding claim 9. *See infra* Section V.C.2. Sonos’s arguments to the contrary misunderstand what the references teach and how they were combined. Moreover, Sonos’s arguments—which are premised on the alleged inefficiency of the combination—at most suggest that the combination was not the best option. Google, however, did not need to show that the combination was the best option, just that it was a suitable option. *Intel Corp. v. Qualcomm Inc.*, 21 F.4th 784, 800 (Fed. Cir. 2021) (citing *PAR Pharm., Inc. v. TWI Pharms., Inc.*, 773 F.3d 1186, 1197-98 (Fed. Cir. 2014)). It clearly met this standard.

III. Finally, substantial evidence supports the Board’s finding that Al-Shaykh alone or in combination with Phillips renders obvious stopping playback at the control device when playback is transferred to the playback device. *See infra* Section V.D.

Regarding Al-Shaykh alone, the Board cited ample evidence, including Al-Shaykh's disclosures and Dr. Bims's testimony, demonstrating that Al-Shaykh generally discloses terminating playback at an initial device when playback is transferred from the initial device to a new device. *See infra* Section V.D.1 (citing Appx45-49). The Board credited Dr. Bims's testimony explaining that these disclosures in Al-Shaykh would have informed a skilled artisan that, when transferring playback from a mobile device to a rendering device, playback at the mobile device likewise terminates, or that it would have been obvious to do so. Appx48-49 (quoting Appx3147-3148 ¶¶ 104-106). Sonos's argument to the contrary is based on its disagreement with how the Board interpreted a different paragraph of Al-Shaykh. Sonos's disagreement is irrelevant because this other paragraph of Al-Shaykh is exemplary and does not limit the portions of Al-Shaykh that the Board relied on for its conclusion. *See infra* Section V.D.1. It also fails on the merits because the Board's interpretation of this other part of Al-Shaykh is reasonable. *Id.*

Regarding the combination of Al-Shaykh and Phillips, the Board noted that Sonos did not dispute that Phillips discloses the limitation at issue. Appx49. Nor does Sonos dispute that fact here. Instead, Sonos only argues that substantial evidence fails to support a motivation to combine the references because Al-Shaykh allegedly teaches away from stopping playback. Sonos's teaching away argument fails for two reasons. First, Sonos does not point to a single teaching in Al-Shaykh

that criticizes, discredits, or otherwise discourages the combination, so it cannot show a teaching away. *See infra* Section V.D.2. Second, Sonos fails to address the three independent reasons that Google provided and that the Board credited for making the combination. *Id.* This is all substantial evidence that supports the combination and undermines Sonos’s teaching away argument.

## **V. Argument**

### **A. Standard of Review**

The Court reviews the Board’s factual findings for substantial evidence and its legal conclusions de novo. *In re Baxter Int’l, Inc.*, 678 F.3d 1357, 1361 (Fed. Cir. 2012). “The presence or absence of a motivation to combine references in an obviousness determination is a pure question of fact,” reviewed for substantial evidence. *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1366 (Fed. Cir. 2016) (quoting *PAR Pharm.*, 773 F.3d at 1196).

A Board decision is supported by substantial evidence if “a reasonable mind might accept the evidence to support the finding.” *Redline Detection, LLC v. Star Envirotech, Inc.*, 811 F.3d 435, 449 (Fed. Cir. 2015) (citation omitted). A decision is supported by substantial evidence even if the record would reasonably support contradictory conclusions. *In re Jolley*, 308 F.3d 1317, 1320 (Fed. Cir. 2002). The Board’s decision to favor one reasonable conclusion over another “is the epitome of a decision that must be sustained upon review for substantial evidence.” *Id.* at 1328-

29; *Shoes by Firebug*, 962 F.3d at 1371 (finding that, when the Board is presented with “two alternative theories as to whether a skilled artisan would or would not have” combined the asserted references, the Court’s “task is not to determine which theory we find more compelling” or “second-guess the Board’s assessment of the evidence,” but to instead address “whether the conclusion adopted by the Board is supported by substantial evidence” (citation omitted)).

**B. Substantial evidence supports the Board’s finding that a skilled artisan would have been motivated to combine Al-Shaykh and Qureshey, including modifying Al-Shaykh’s system to incorporate Qureshey’s IPAN server.**

In Google’s Al-Shaykh-Qureshey combination, which the Board adopted, when a user provides a set of inputs to transfer playback from the mobile device to a playback device (as disclosed in Al-Shaykh), the system causes a first cloud server (i.e., Qureshey’s IPAN server) to add a playlist of URLs to the playback device (as disclosed in Qureshey). Appx3145 ¶ 101; Appx3143 ¶ 98; Appx37. The playback devices use the URLs to obtain the corresponding songs from a remote source and play the songs according to the playlist. Appx3143-3144 ¶ 99; Appx37.

Sonos does not dispute that this combination teaches “*causing one or more first cloud servers to add multimedia content to a local playback queue on the particular playback device.*” Appx104, 17:59-67 (emphasis added). It only challenges the Board’s finding that the combination would have been obvious. Blue Br. 44-65.



But Google presented—and the Board credited—substantial evidence that a skilled artisan would have found it obvious to combine Qureshey and Al-Shaykh for three reasons relevant to this limitation. *See supra* Section III.B.1.c. First, both references deal with similar devices and solve similar problems in those devices. Appx131-134; Appx443; Appx3125-3129 ¶¶ 71-78. Second, Qureshey provides additional details omitted from Al-Shaykh for directly retrieving media content from a remote server, and a skilled artisan would have been motivated to look to Qureshey for these additional details. Appx145-152; Appx443; Appx3145-3146 ¶¶ 101-102. Third, incorporating Qureshey’s back-end server functionality would improve the robustness of playback at the playback device, particularly if there were problems with the mobile device. Appx152; Appx443; Appx3146-3147 ¶ 103.

Sonos’s challenge consists of two main arguments. First, Sonos argues that the Board erred in finding that a skilled artisan would have combined Al-Shaykh and Qureshey *at all*. Blue Br. 44-57. Sonos alleges that the Board ignored differences between the two references that undermine the combination, Blue Br. 44-51, and fabricated “a phantom similarity” between the two references that does not exist, Blue Br. 51-54. Second, Sonos alleges that the Board erred in finding that a skilled artisan would have specifically incorporated Qureshey’s IPAN server into Al-Shaykh. Blue Br. 58-65.

As explained below, Sonos forfeited most of its arguments by never raising them below. Regardless, they all fail to undermine the substantial evidence supporting the Board’s findings. At their core, Sonos’s arguments are disagreements with the Board’s findings. And while Sonos might point to evidence supporting its contrary interpretations, this is not enough to disturb the Board’s findings on appeal. *Shoes by Firebug*, 962 F.3d at 1369 (“If two ‘inconsistent conclusions may reasonably be drawn from the evidence in record, the PTAB’s decision to favor one conclusion over the other is the epitome of a decision that must be sustained upon review for substantial evidence.’” (quoting *Elbit Sys. of Am., LLC v. Thales Visionix, Inc.*, 881 F.3d 1354, 1356 (Fed. Cir. 2018))). Substantial evidence supports each of the Board’s three reasons for combining the references, so the Court should affirm.

**1. Substantial evidence supports each of the Board’s three reasons for combining Al-Shaykh and Qureshey, which are each an independent basis to affirm.**

The Board credited each of Google’s three reasons for combining Al-Shaykh and Qureshey. Appx40-41. As explained below, each of those three rationales is supported by substantial evidence and sufficient to affirm the Board’s decision.

*First*, the Board credited Google’s evidence that the two references “are in the same field of endeavor, deal with similar devices, and are directed to solving the same problems in those devices.” Appx40 (quoting Appx132); Appx42 (citing Appx3125-3129 ¶¶ 72-77; and supporting disclosures from Al-Shaykh and

Qureshey). Specifically, the Board adopted Dr. Bims’s testimony that the two references (a) enable users to play back content on system devices from the Internet, Appx3125-3126 ¶ 72; (b) describe similar networked media playback systems that include a control device and one or more rendering devices that are often used in homes or offices, Appx3126-3127 ¶ 73; (c) include GUIs on their control devices that allow the user to manage content to play back on the playback device, which Sonos concedes, Appx3128 ¶ 75; Blue Br. 48; and (d) describe related mechanisms for adding metadata associated with media content to the playback devices, Appx3128-3129 ¶ 76; Appx42; *see also supra* Section III.B.1.c. Unsurprisingly, the overlapping disclosures from Al-Shaykh and Qureshey present similar benefits—both systems allow users greater flexibility to access and play content from the Internet and on various device configurations for different scenarios, as well as mix expensive control devices, such as PCs, with low-cost devices, such as rendering devices. Appx3125-3128 ¶¶ 72-74. This improves on traditional systems that were limited to playing locally stored content with limited device configurations and required multiple expensive control devices. *Id.*

The Board noted that Sonos did “not directly address or persuasively counter” this “evidence.” Appx42-43. The Board recognized Sonos’s repeated acknowledgement that Qureshey’s disclosures were well known and determined that the similarities between the references were sufficient to establish a motivation to

combine because “[t]here is a motivation to combine when a known technique ‘has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way’ using the ‘prior art elements according to their established functions.’” Appx43 (quoting *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1380-81 (Fed. Cir. 2023)).

**Second**, the Board credited Google’s evidence that a skilled artisan would have been motivated to incorporate Qureshey’s back-end server functionality (e.g., its IPAN server) into Al-Shaykh’s system because Al-Shaykh discloses that playback devices “can directly retrieve media content from a remote server for playback but Al-Shaykh does not explain the details on the back-end functionality that facilitates this transaction.” Appx40-41 (quoting Appx151-152 (citing Appx3146-3147 ¶¶ 102-103; Appx3286 ¶¶ 94, 97)); Appx44; *see also* Appx159-163. Thus, a skilled artisan would have looked to similar references in the art, such as Qureshey, to determine how playback devices, such as those in Al-Shaykh, can directly retrieve content from remote sources. Appx40-41; Appx44. In doing so, the skilled artisan would have determined to use Qureshey’s IPAN server to facilitate Al-Shaykh’s rendering devices directly retrieving media content from a remote server. Appx3125-3129 ¶¶ 72-73, 75-78.

**Third**, the Board credited Google’s evidence that a skilled artisan also would have understood that implementing Qureshey’s IPAN server would improve

Al-Shaykh’s system because any disconnection or failures on the control device would not impact ongoing playback on the playback device. Appx41 (quoting Appx152 (citing Appx3146-3147 ¶ 103)). As Dr. Bims explained, the combined system achieves this benefit because URLs are stored on the playback device itself and, thus, the playback device does not rely on an active connection or content stream from the control device. Appx3146-3147 ¶ 103. Therefore, a skilled artisan also would have been motivated to combine Al-Shaykh and Qureshey to realize this benefit. *Id.*

Each of these three findings is supported by substantial evidence, and each one provides a basis to affirm the Board’s obviousness determination. Google demonstrated—with supporting evidence—that both references disclose similar devices that solve similar problems. And it showed that a known technique used to improve one device (the back end IPAN functionality and server in Qureshey) would improve a similar device (Al-Shaykh) in a similar way. That is more than sufficient under *KSR* and this Court’s precedent. *E.g., Unwired Planet, LLC v. Google Inc.*, 841 F.3d 995, 1003 (Fed. Cir. 2016) (“[T]he Court stated that ‘if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious . . . .’” (quoting *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007))); *accord Intel*, 61 F.4th at 1380-81.

In this regard, Sonos’s repeated citations to *TQ Delta*, *Magnum Oil*, and *DSS* are inapt. *See* Blue Br. 46-65. In *TQ Delta*, the Board erred by relying on a two-sentence motivation-to-combine analysis in an expert’s “*ipse dixit* declaration” that baldly stated the combination would “simplify implementation.” *TQ Delta, LLC v. CISCO Sys., Inc.*, 942 F.3d 1352, 1361-63 (Fed. Cir. 2019) (citation omitted). Here, the Board credited Dr. Bims’s three separate reasons for combining the references backed by multiple pages of analysis and disclosures from both references. Appx40-45. In *Magnum Oil*, the expert’s only testimony on motivation to combine “not[ed] surface similarities between” the references that were unrelated to the relevant features of the claimed invention. *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1372-73, 1379-80 (Fed. Cir. 2016). Here, Dr. Bims first noted how the references are similar in manners directly related to the ’615 patent, and then provided two specific motivations for combining to achieve the claim limitation. Finally, in *DSS*, the Board erred in adopting an obviousness analysis that relied on “ordinary creativity” to fill in a missing claim element. *DSS Tech. Mgmt., Inc. v. Apple Inc.*, 885 F.3d 1367, 1374-77 (Fed. Cir. 2018). Here, Sonos does not dispute that the combination teaches all claim elements. Sonos’s cases are thus inapposite.

**2. Sonos fails to demonstrate that the Board erred in finding that a skilled artisan would have been generally motivated to combine Al-Shaykh and Qureshey.**

Sonos raises four challenges to the Board’s finding that a skilled artisan would have even looked to combine Qureshey and Al-Shaykh generally. Blue Br. 44-57. As explained below, Sonos never raised the first two of these arguments to the Board and thus forfeited them. And none of Sonos’s arguments undermine the substantial evidence supporting the Board’s determination. *See In re NuVasive, Inc.*, 842 F.3d 1376, 1379-80 (Fed. Cir. 2016) (noting that substantial evidence only requires showing “relevant evidence [that] a reasonable mind might accept as adequate to support a conclusion” (citation omitted)).

*First*, Sonos argues that Qureshey and Al-Shaykh teach “[d]ifferent devices.” Blue Br. 45-49. Sonos contends that Qureshey teaches a “stand alone” playback device with on-device controls that does not require the user to set up a home network. Blue Br. 45 (quoting Appx3352, 5:63). By contrast, Sonos contends that Al-Shaykh discloses that “[i]ts playback device *does not* stand alone” and “relies *exclusively* on the user’s home network to receive control inputs and media content.” Blue Br. 46.

Sonos complains that the Board never addressed these “undisputed disparities,” *id.*, but Sonos never made this argument to the Board. That is, Sonos never distinguished Qureshey and Al-Shaykh based on the use of “stand alone”

playback devices or a home network. *See* Appx383-388; Appx392-401; Appx443-445. This argument is therefore forfeited. *See Sage Prods., Inc. v. Devon Indus., Inc.*, 126 F.3d 1420, 1426 (Fed. Cir. 1997) (“[A]ppellate courts do not consider a party’s new theories, lodged first on appeal.”); *Fresenius USA, Inc. v. Baxter Int’l, Inc.*, 582 F.3d 1288, 1296 (Fed. Cir. 2009) (“skeletal or undeveloped argument[s]” are forfeited).

Sonos’s argument also fails on the merits. The obviousness combination added Qureshey’s *IPAN server* to Al-Shaykh’s system, so Sonos’s narrow focus on whether each reference’s *playback device* (a different element) is a “stand alone” device or connects to a home network is irrelevant. Even if it were relevant, the features Sonos emphasizes are not “disparities,” but instead additional similarities. Both references disclose playback devices with on-device controls, thus meeting Sonos’s description of “stand alone” devices. Blue Br. 45 (characterizing Qureshey as “stand alone” because “the playback controls are located right on the device itself” (quoting Appx3352, 5:63)); Appx3284 ¶ 81 (Al-Shaykh disclosing that rendering devices may include devices such as “a television,” “a stereo,” or a variety of



computers, which necessarily include on-device controls).<sup>4</sup> Moreover, as discussed above, the playback devices of both references use both a home network and the Internet. *See supra* Sections III.B.1.a, III.B.1.b (overviews for both references showing this functionality).<sup>5</sup>

Sonos's argument also fails because it minimizes or ignores the abundant evidence of the references' similarities that Dr. Bims introduced and that the Board credited. *See supra* Sections III.B.1.c., V.B.1 (summarizing evidence). The Board noted in its final written decision that Sonos did "not directly address or persuasively counter" this evidence. Appx42-43. Sonos doubles down on this failure by taking the same approach on appeal. Sonos tangentially addresses a paragraph of Dr. Bims's declaration, labeling it as "conclusory" and "threadbare." Blue Br. 47-48

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<sup>4</sup> Sonos argues that Al-Shaykh "disparag[es] systems that placed controls directly on the playback device." Blue Br. 46 (citing Appx3279 ¶ 8; Appx3280 ¶¶ 14-15). This is incorrect. Al-Shaykh disparages an approach where the user cannot control playback from the mobile device at all and must rely exclusively on external control points and the playback devices to control playback. Appx3279 ¶ 8. This is different than disparaging controls on the playback device generally, which Al-Shaykh does not do. Indeed, as discussed above, Al-Shaykh discloses example playback devices that do have controls. Appx3284 ¶ 81.

<sup>5</sup> As part of this argument, Sonos also asserts that Qureshey fails to disclose transferring playback or "full, essentially real-time control" of the playback device. Blue Br. 45-46, 48. But these assertions are irrelevant. *Id.* Qureshey need not disclose these features because Al-Shaykh does, as Google explained. Appx142-144. Indeed, the Board explained that this argument is "misdirected because it attacks Qureshey in isolation and does not consider the presentation in the Petition regarding the combination of Al-Shaykh and Qureshey." Appx38.

(citing Appx3125-3126 ¶ 72). But reviewing Dr. Bims’s full analysis, Appx3125-3129 ¶¶ 72-78, reveals that Sonos’s characterization is entirely inaccurate. The Board’s finding that the references disclose similar devices is supported by substantial evidence.

**Second**, Sonos argues that the references addressed “different problems.” Blue Br. 49-51. In doing so, Sonos alleges that Qureshey and Al-Shaykh “arose in strikingly different technological contexts” and dealt with “two radically different generations of internet-connected media systems.” *Id.* It then casts Al-Shaykh and Qureshey as each addressing a narrow and singular “challenge.” *See* Blue Br. 49-50. “Qureshey’s challenge was offering access to internet audio with ‘convenience’ despite” the limitations on home networking that allegedly existed at the time of Qureshey. Blue Br. 49 (quoting Appx3350, 2:18-19). “Al-Shaykh’s challenge was making a more intuitive mobile ‘interface’ that would display [existing home networking] functionality on a single screen for centralized control over multiple playback devices.” Blue Br. 50 (citing Appx3280 ¶ 15).

Like its first argument, Sonos never raised this argument to the Board and thus forfeited it. *See* Appx383-388 and Appx392-401 (failing to raise any arguments related to different technological contexts or the specific, singular “challenge[s]” Sonos now raises for each reference); *see Sage Prods.*, 126 F.3d at 1426; *Fresenius*, 582 F.3d at 1296. The Court therefore does not need to address this argument, but if

it does, Sonos's position is unsupported attorney argument. While this is an artifact of Sonos having never raised this argument below, it also substantively dooms Sonos's position.

Moreover, Sonos does not address Google's substantial evidence supporting the Board's determination that the references address common problems. Appx40-42. Sonos only addresses one excerpt from paragraph 72 of Dr. Bims's declaration, Blue Br. 49-51 (citing Appx3125-3126 ¶ 72), but the Board relied on and credited much more evidence, Appx42 (citing Appx3125-3129 ¶¶ 72-77; and additional supporting evidence). This evidence demonstrates that both references describe networked media systems that allow users the flexibility of playing content on various device configurations for different scenarios. Appx3126-3127 ¶ 73 (citing Appx3279 ¶ 5; Appx3350, 2:16-20). It also demonstrates that both systems provide cost-effective improvements that mix expensive control devices, such as PCs, with low-cost playback devices, such as rendering devices. *See, e.g.*, Appx3127-3128 ¶ 74 (citing Appx3350, 1:65-2:12; Appx3351, 4:1-3; Appx3279 ¶ 4). Additionally, the evidence demonstrates that both systems provide users with greater accessibility to more content than traditional systems, which were limited to playback of content locally stored on the network. Appx3125-2126 ¶ 72 (citing Appx3350, 1:37-52; Appx3285 ¶ 90). Sonos does not meaningfully confront this evidence and thus fails

to demonstrate that the Board erred in finding that the references addressed similar problems.

**Third**, Sonos asserts that the Board “credit[ed] a phantom similarity between the references” because, according to Sonos, Al-Shaykh does not disclose a playback device that can directly retrieve content from a remote server. Blue Br. 51-54. Sonos simply disagrees with Dr. Bims’s and the Board’s reading of Al-Shaykh’s disclosures. Sonos’s disagreement cannot disturb the Board’s finding because the record clearly supports the Board’s reading of Al-Shaykh, as discussed below. *See, e.g., Shoes by Firebug*, 962 F.3d at 1371.

The Board twice affirmatively cited Google’s position that “Al-Shaykh’s rendering devices can directly retrieve media content from a remote server for playback.” Appx40-41 (quoting Appx152); Appx44 (quoting Appx152). Al-Shaykh directly supports this understanding, explaining that the media content can be obtained from a “remote content service” and that if the media content “is not stored locally on the mobile device 11, the media content may or *may not* flow through the mobile device 11.” Appx3286 ¶¶ 94-95 (emphasis added). Dr. Bims explained that these teachings demonstrate that the media content in Al-Shaykh “can be stored remotely and ‘flow’ directly to the target rendering device.” Appx3157-3158 ¶ 128 (citing Appx3286 ¶ 95); *see also* Appx3146 ¶ 102. This is substantial evidence

supporting the Board’s finding that Al-Shaykh’s remote media content may come directly from the remote source instead of flowing through the mobile device.

Sonos has a different interpretation of Al-Shaykh. Blue Br. 51-54. Sonos reads paragraphs 95 and 96 as limiting the server-based communication to only a local server, but not a remote server. Blue Br. 53 (citing Appx3286 ¶¶ 95-96). But Sonos overlooks that these paragraphs, by their own terms, are just “example[s]” of what is more broadly described in paragraph 94. Appx3286 ¶¶ 94-96. Sonos’s interpretation improperly limits paragraph 94 to these examples, contrary to Al-Shaykh’s open-ended disclosure.<sup>6</sup> Even if Sonos’s constrained reading of Al-Shaykh were reasonable (it is not), the Board’s and Dr. Bims’s reading is also reasonable. And that is the epitome of a finding that this Court affirms on substantial evidence. *E.g., Velandier v. Garner*, 348 F.3d 1359, 1378 (Fed. Cir. 2003) (“If the evidence will support several reasonable but contradictory conclusions, we will not find the Board’s decision unsupported by substantial evidence simply because the Board chose one conclusion over another plausible alternative.” (citing *In re Jolley*, 308 F.3d at 1320)).

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<sup>6</sup> Sonos’s assertion that the “playback device *never makes* [a] connection” to a remote server is incorrect. Blue Br. 54. Al-Shaykh explains that the playback device can connect to other networks outside the home network, including the “internet.” Appx3284 ¶¶ 80-82. Moreover, remote content from the remote content provider is “access[ed] . . . using the internet.” *Id.*; Appx3279 ¶ 6; Appx3281 ¶ 20; *see* Appx3156-3157 ¶ 126.

*Fourth*, Sonos faults the Board for crediting an additional similarity between the references—that both references disclose a graphical user interface (GUI) and that a skilled artisan would have been motivated to combine them to develop an improved GUI for controlling devices in the network. Blue Br. 54 (citing Appx40; Appx133). Sonos does not dispute that both references disclose a GUI—it only contends that the GUIs serve different purposes. Blue Br. 55-56. Even if Sonos were correct (it is not), this quibble with the Board’s finding is irrelevant because the substantial evidence discussed above already supports the Board’s finding that the references disclose similar devices and address similar problems. Having similar GUIs is just one additional commonality between the references.

Sonos is also wrong that the GUIs “do not perform comparable control functions.” Blue Br. 55. As Sonos concedes, users “curate playlists” on Qureshey’s PC that the playback device later uses for playback. Blue Br. 45. This is done on a Playlist Manager application, which enables users to “manage playlists” and “assign” playlists to different playback devices. Appx3361, 23:28-40, 23:66-24:6, 24:44-60; Appx3322, Fig. 17A; Appx3324, Fig. 17C; *see* Appx3323, Fig. 17B; Appx3325-3330, Figs. 17D-17I. Al-Shaykh similarly discloses managing playlists on the media application. *See, e.g.*, Appx3286 ¶ 92 (“the media application may be a music player application,” which allows users to “identif[y], organize[], arrange[ music files] into playlists and/or render[]” music content). Thus, both

references provide comparable GUI functionality even though Al-Shaykh may provide additional functionality of transferring playback to the playback device and controlling such playback. *See* Appx21-29 (Board's undisputed description of Al-Shaykh's control device with a graphical user interface enabling a user to transfer and control playback at playback devices).

In summary, two of Sonos's four arguments against generally combining Qureshey with Al-Shaykh are new and forfeited. And none of its arguments undermine the substantial evidence supporting the Board's finding that a skilled artisan would have combined Qureshey with Al-Shaykh.

**3. Sonos fails to demonstrate that the Board erred in finding that a skilled artisan would have specifically incorporated Qureshey's IPAN server into Al-Shaykh.**

As discussed above, Dr. Bims provided two reasons why a skilled artisan would have been motivated to incorporate Qureshey's IPAN server into Al-Shaykh. *See supra* Sections III.B.1.c., V.B.1. First, Dr. Bims explained that Al-Shaykh's rendering devices can retrieve media content from a remote server, but Al-Shaykh does not explain the details of this back-end functionality, so a skilled artisan would have looked to Qureshey for those details. Appx3146-3147 ¶¶ 102-103. Second, Dr. Bims explained that Qureshey's back-end server functionality (e.g., its IPAN server) would improve Al-Shaykh's system by preventing any disconnection or failure of the mobile device from impacting ongoing playback on the rendering

device, which would improve the user experience by minimizing playback stoppages. Appx3146-3147 ¶ 103. The Board cited and credited both rationales, Appx41; Appx44, each of which independently provides substantial evidence for the Board’s ultimate finding on motivation to combine. The Board also recognized Sonos’s counterarguments but found them unpersuasive. Appx44 (citing Appx392-401).

On appeal, Sonos presents a new argument that it never raised below: Qureshey teaches an “older hub-and-spoke system that avoided the need for home networking” by using its IPAN server to link the user’s PC and the playback device. Blue Br. 62; *see* Blue Br. 58-60. It argues that Qureshey offered “‘convenience’ in an era when computing and home networking remained challenging for many consumers.” Blue Br. 60 (quoting Appx3350, 2:18-19). In contrast, Sonos argues that “[b]y Al-Shaykh’s time, however, home networking had become intuitive and commonplace,” and so “Al-Shaykh’s playback device thus relied *exclusively* on the home network to acquire content *without* ‘delay.’” Blue Br. 60-61 (quoting Appx3283 ¶ 61). According to Sonos, these “bedrock technological differences presented a critical obstacle” to the combination. Blue Br. 61. Sonos’s appeal argument is premised on this alleged “poor technological fit” between the references. Blue Br. 63. But Sonos never presented these arguments to the Board; it never



contrasted the references based on their relative age and use of home networking. *See* Appx383-388; Appx392-401.

While Sonos correctly notes that it argued the proposed combination would fundamentally alter Al-Shaykh, *see* Blue Br. 62-63, Sonos made this argument based on a starkly different rationale. Appx394-397 (arguing that Al-Shaykh already disclosed three ways to transfer content and a skilled artisan would not consider another); Appx398-399 (arguing that modifying Al-Shaykh with Qureshey would be a “significant undertaking”). Sonos never pointed to the alleged differences that it now addresses on appeal, and thus Sonos forfeited its argument. *See Pabst Licensing GMBH & Co. KG v. Samsung Elecs. Am., Inc.*, 924 F.3d 1243, 1250 (Fed. Cir. 2019) (“[T]his factual contention did not appear until the appeal, and such a contention is forfeited if not fairly presented to the Board.”); *Apple Inc. v. Masimo Corporation*, No. 2022-1890, 2024 WL 137336, at \*3-4 (Fed. Cir. Jan. 12, 2024) (finding appellant’s argument to the Board that the prior art “teaches suspending its motion artifact suppression module” was insufficient to preserve its appellate argument regarding “suspending a subset of components within that module”); *In re NuVasive*, 842 F.3d at 1380-81 (finding that patent owner waived arguments not raised in patent owner response); Appx322 (Board scheduling order cautioning Sonos that arguments not raised in patent owner response may be deemed waived).

Sonos's new argument also fails on the merits because Sonos misinterprets both the references' teachings and how Google and the Board combined them. Sonos's unsupported and incorrect attorney argument does not demonstrate that the Board erred or undermine the substantial evidence supporting the Board's findings.

**First**, Sonos misinterprets Qureshey by asserting that Qureshey operates without a home network and without any direct connection between the PC and playback device. Blue Br. 59. As explained above in Section III.B.1.b, Qureshey discloses a media system using home network connections for device communications. Appx3350-3351, 2:58-3:4; Appx3351, 3:57-4:3; Appx3364, 30:19-26; Appx133. Moreover, Qureshey explains that this home connection allows for faster device communications, undermining Sonos's manufactured concern of imposing "significant[] delay" when combining teachings of Al-Shaykh and Qureshey. *See* Appx3364, 30:19-26 (describing playback devices retrieving content "instantaneously"); Blue Br. 59-60. Sonos also overlooks Figures 17A-17E and the corresponding disclosures in Qureshey, which describe a software application *used on the PC device* that provides control over the playback devices via various interfaces. Appx3361, 23:28-50; Appx3322-3326, Figs. 17A-17E. One such interface displayed on the PC includes a "schedule button 1710" by which the user at the PC "interactively" schedules the playback device to automatically turn on and

play a playlist at a specific time. Appx3362, 25:3-18; Appx3361, 23:28-32; Appx3326, Fig. 17E; Appx446.

**Second**, Sonos mischaracterizes Al-Shaykh by arguing that Al-Shaykh’s playback device (i) does not directly retrieve content from remote sources, and (ii) “*exclusively*” relies on home networking. Blue Br. 60-62, But, as explained in Section III.B.1.a, Al-Shaykh’s playback devices do retrieve remote media content from a remote content provider over the Internet—and, thus, do not “*exclusively*” rely on the home network or the mobile device, contrary to Sonos’s assertions. *See also* Appx3281 ¶ 20; Appx3284 ¶¶ 80-82; Appx54-57.

**Third**, Sonos argues that Al-Shaykh’s “mobile device always communicates directly with the playback device” and that the Board did not provide substantial evidence for its “drastic change” of adding Qureshey’s IPAN server. Blue Br. 62-65. But the Board did provide substantial evidence for the combination. As explained above, it credited both of Dr. Bims’s rationales: (1) Al-Shaykh does not explain the details of the back-end functionality required for its rendering devices to retrieve media content from a remote server, so a skilled artisan would have looked to Qureshey for those details; and (2) Qureshey’s back-end server functionality (e.g., its IPAN server) would improve Al-Shaykh’s system by preventing any disconnection or failure of the mobile device from impacting ongoing playback on the rendering device, which would improve the user experience by minimizing

playback stoppages. Appx41 (quoting Appx152 (citing Appx3146-3147 ¶¶ 102-103)); Appx44. Sonos brushes these rationales aside, claiming support for them is “found nowhere in the prior art.” Blue Br. 63. But “an obviousness determination does not require prior art to expressly state a motivation for every obvious combination.” *Intel Corp. v. Qualcomm Inc.*, Nos. 2020-2092, -2093, 2022 WL 880681, at \*3 (Fed. Cir. Mar. 24, 2022); *see also Intel*, 21 F.4th at 797 (motivation to combine may exist “*even absent any hint of suggestion* in the references themselves” (citation omitted)). Dr. Bims’s reasoned testimony is substantial evidence sufficient to support the combination.

Sonos’s new and incorrect attorney argument does not undermine the substantial evidence supporting the Board’s conclusion that a skilled artisan would have been motivated to incorporate Qureshey’s IPAN server into Al-Shaykh, as explained in Section III.B.1.c, *supra*. The Court should therefore affirm the Board’s finding.

**C. Substantial evidence supports the Board’s finding that Al-Shaykh and Qureshey render claim 9 obvious.**

**1. Sonos forfeited its appeal arguments by never raising them below.**

For claim 9, Sonos presents one appellate argument: that Google and the Board “never explained why a skilled artisan would have been motivated to” combine Al-Shaykh and Qureshey to achieve claim 9. Blue Br. 65-72; *see* Blue Br.

65-68 (no motivation to modify Al-Shaykh), 69-72 (attacking “motivation-to-combine” analysis). Sonos alleges that the “problems” with the motivation-to-combine analysis “run deeper” for claim 9 and pose additional concerns on top of those it raises for claim 1. Blue Br. 66. Sonos never raised this argument below. Instead, in its patent owner response, Sonos only asserted that Al-Shaykh did not disclose claim 9’s limitations. Sonos’s entire patent owner response argument for claim 9 is reproduced below:

Google also fails to establish that Ground I or II teaches the claimed “message” that is sent from the “control device” to the “streaming content service” and “causes the one or more first cloud servers to add the multimedia content to the local playback queue on the particular playback device,” as required by claim 9. Simply put, Al-Shaykh discloses three different approaches in which “media content” is transferred from a “mobile device” to a “target rendering device,” and none of them involve the message required by claim 9. *Supra* §VI.A.2; [Appx4987 ¶ 252]. Google’s assertion to the contrary is unsupported by Al-Shaykh. [Appx173]. Google points to Al-Shaykh’s “service-specific application on a mobile device” associated with a “remote content service,” but such general disclosure simply does not amount to the specific functionality required by claim 9. [Appx4987-4989 ¶¶ 253-256].

Appx419-420; *see* Appx455-456.

Sonos therefore forfeited its motivation-to-combine argument, and the Court should not consider it in the first instance. *See Sage Prods.*, 126 F.3d at 1426; *Fresenius*, 582 F.3d at 1296; Appx322 (Board scheduling order cautioning Sonos

that arguments not raised in patent owner response may be deemed waived). This disposes entirely of Sonos's claim 9 arguments. Thus, the Court should affirm the Board's findings.

**2. Substantial evidence supports the Board's finding that the combination of Al-Shaykh and Qureshey renders obvious claim 9.**

Nonetheless, substantial evidence supports the Board's finding that the combination of Al-Shaykh and Qureshey renders obvious claim 9, which requires sending a "message to the streaming content service" that causes the first cloud servers to add content to the playback device. Appx105, 19:32-38.

The Board adopted Google's position that Al-Shaykh and Qureshey disclose the claimed "message" and that this message causes the IPAN server to add content to the playback devices. Appx64-66. The Board recognized that to transfer playback in Al-Shaykh, a user provides inputs to a "service-specific application on the mobile device," which is associated with a remote content service. Appx66; Appx64-65 (quoting Appx173 (citing Appx3279 ¶ 6; Appx3285 ¶ 90; Appx3286 ¶ 95)). It then credited Dr. Bims's testimony that Al-Shaykh's disclosure of a user providing input to the service-specific application would include "sending [a] message to the

[remote] content service.”<sup>7</sup> Appx66 (citing Appx3169 ¶ 151 (“[A] POSA would recognize that the user inputs result in sending a message to the remote content service that is associated with the service-specific application.”); *see also* Appx64-65 (quoting Appx173 (citing Appx3169 ¶ 151)); *see supra* Section III.B.1.a. Finally, the Board credited Google’s evidence that, in the Al-Shaykh-Qureshey system, the user input/message causes Qureshey’s IPAN server to add multimedia content to the local playback queue on the playback device. Appx65 (quoting Appx173 (citing Appx3169 ¶ 151)); *see also* Appx37 (quoting Appx151 (citing Appx3145 ¶ 101)).

Substantial evidence supports the Board’s finding that Al-Shaykh and Qureshey render obvious claim 9, including that a skilled artisan would combine these references to achieve claim 9. Appx64-66. Google asserted the same Al-Shaykh and Qureshey combination against claim 9 as it did for claim 1, without further modification. *Compare* Appx145-152 (modifying Al-Shaykh to incorporate Qureshey’s IPAN server and back-end functionality), *with* Appx173 (same). And a skilled artisan would have understood Al-Shaykh’s disclosures as including the

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<sup>7</sup> Sonos argues that “Al-Shaykh never expressly describes a message traveling from the mobile device to a remote content service,” Blue Br. 68, but this mischaracterizes Google’s mapping. As this section shows, Google never alleged “express” disclosure. It instead explained, with support from Dr. Bims, that a skilled artisan would have understood the inputs in Al-Shaykh would send a message to the remote content service. Appx173 (citing Appx3169 ¶ 151). The Board credited this substantial evidence when it agreed with Google. Appx64-66.

message to the remote content service, as explained above. Thus, the reasons for combining Al-Shaykh and Qureshey for claim 1 apply equally to claim 9, and substantial evidence supports the Board’s finding that a skilled artisan would have been motivated to modify Al-Shaykh’s system to incorporate Qureshey’s IPAN server and back-end functionality. *See supra* Section V.B.

Sonos’s two counterarguments fail on the merits.

**First**, Sonos argues that the Board “failed to cite substantial evidence that a skilled artisan *could have*” combined Al-Shaykh and Qureshey because it did not provide certain “operational details.” Blue Br. 69-71. Specifically, Sonos alleges that the Board did not explain how Al-Shaykh’s mobile device could message the remote content service to cause the IPAN server to add URLs to the playback device. *Id.*; *see also* Blue Br. 65-68 (arguing the Board never explained how a skilled artisan would implement “roundabout and complicated . . . messaging” in which Al-Shaykh’s mobile device “indirectly” communicates with the IPAN server). In addition to being forfeited, *see supra*, this argument misinterprets how the combined system operates and misstates the standard for combining references.

When combined, Al-Shaykh’s mobile device still communicates with the IPAN server to add URLs to the playback device, as taught by Qureshey. Specifically, as Dr. Bims explained regarding base claim 1’s limitation of adding resource locators to the playback queue, Qureshey discloses receiving an input at the



mobile/client device and the mobile/client device communicating with the IPAN server to add URLs to the playback device. Appx3142-3145 ¶¶ 97-101 (describing Qureshey’s synchronization procedure). This functionality is incorporated into Al-Shaykh such that, when the playback transfer input is received at the mobile device in the combined system, the mobile device directly communicates with the IPAN server to add URLs to the playback device.<sup>8</sup> Appx37; Appx3145 ¶ 101. This combination did not change for claim 9, and the fact that Al-Shaykh also teaches sending a message to the streaming content service, as explained above, does not eliminate this direct communication between the IPAN client and server.

Sonos’s allegations of “roundabout and complicated” messaging are thus unfounded. Blue Br. 66. Even if Sonos were correct about there being extraneous messaging, its position boils down to arguing that the proposed combination is less than ideal. But this is not the standard, and combining two references to create a suitable system is sufficient to establish obviousness. *See Intel*, 21 F.4th at 800 (“Our

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<sup>8</sup> Sonos also asserts that Qureshey fails to disclose messaging between the PC and streaming service and a connection between the remote content service and the IPAN server. Blue Br. 67-68. These assertions are irrelevant because Al-Shaykh already discloses these features, as Google explained. Appx173 (explaining that Al-Shaykh discloses the claimed message); Appx66; *supra* Section III.B.1.a (showing that Al-Shaykh’s system devices can connect to the Internet); *see* Appx38 (the Board rejecting Sonos’s arguments about certain features missing from Qureshey as “misdirected because it attacks Qureshey in isolation and does not consider the presentation in the Petition regarding the combination of Al-Shaykh and Qureshey”).

caselaw is clear. It's not necessary to show that a combination is 'the *best* option, only that it be a *suitable* option.'" (citation omitted)).

**Second**, Sonos argues that the Board "failed to marshal substantial evidence that a skilled artisan *would have*" combined Al-Shaykh and Qureshey, as Google proposed, because the combined system uses indirect messaging instead of direct messaging. Blue Br. 71-72. This argument suffers from the same two flaws as the previous argument. First, it misunderstands the combination for the reasons discussed above. Second, it merely alleges that the combined system is not the best option, which is not required under the law. *See Intel*, 21 F.4th at 800. Instead, the Board only needed to cite substantial evidence that shows that the combined system presents a suitable option. As explained above, the Board cited such substantial evidence, which warrants affirmance.

**D. Substantial evidence supports the Board's finding that Al-Shaykh alone or in combination with Phillips renders obvious stopping the control device's playback when playback is transferred to the playback device.**

Claim 1 requires "transfer[ring] playback from the control device to the particular playback device." Appx104, 17:53-58. Sonos does not dispute the Board's finding that Al-Shaykh discloses "transferring playback," even though Sonos disputed this limitation below. Appx29-33. Instead, Sonos disputes the Board's findings that the prior art renders obvious "causing playback at the control device to be stopped" as part of the transfer. Appx104, 18:1-18:2. The Board found this claim

limitation obvious under two independent grounds: (i) Al-Shaykh alone; and (ii) the combination of Al-Shaykh and Phillips. Appx45-52.

To succeed on appeal, Sonos must show that the Board erred regarding both findings. As discussed below, however, substantial evidence supports both findings, so the Court should affirm based on either ground.

**1. Substantial evidence supports the Board’s finding that Al-Shaykh alone teaches or renders obvious this limitation.**

Substantial evidence supports the Board’s finding that Al-Shaykh teaches or renders obvious terminating playback at the mobile device when playback is transferred to the playback device. Appx48-49 (quoting Appx3147-3148 ¶¶ 104-106 (citing Appx3283 ¶ 53; Appx3286 ¶ 93; Appx3287 ¶ 100; Appx3293 ¶¶ 156-157; Appx3294 ¶¶ 166-167; Appx3295 ¶¶ 173-174)); Appx3286 ¶ 92; Appx45-47.

The Board, citing Al-Shaykh and Dr. Bims’s testimony, assessed how Al-Shaykh generally describes transferring media content, finding that “when the media content is transferred to a new rendering device,” “Al-Shaykh stops rendering of the media content on the device currently rendering the media content.” Appx48. Al-Shaykh supports this finding with two examples. First, when a user transfers playback from a first playback device to a second playback device, playback at the first device stops and playback at the second playback device begins. Appx3293 ¶ 156; Appx3294 ¶ 166; Appx3295 ¶ 173. Second, when a user transfers playback

from the playback device to the mobile device, playback at the playback device stops. Appx3293 ¶ 157; Appx3294 ¶ 167; Appx3295 ¶ 174. Sonos sweeps these disclosures aside as irrelevant to the “mobile device’s operation,” Blue Br. 76-77, but it ignores that the Board relied on them for what Al-Shaykh generally teaches about transferring playback, i.e., that when Al-Shaykh transfers playback, whichever device is currently playing content stops its playback and the new device starts playing content. Appx46.

The Board credited Dr. Bims’s testimony explaining that these portions of Al-Shaykh would have informed a skilled artisan that, when transferring playback from a mobile device to a rendering device, playback at the mobile device likewise terminates, or that it would have been obvious to do so. Appx48-49 (crediting Appx3147-3148 ¶¶ 104-106); *see also* Appx45-46. As Dr. Bims explained, “Al-Shaykh discloses the functionality required to stop playback at the mobile device when playback is transferred” because it discloses that when transferring playback from an initial rendering device to a new one, “rendering of the music content on the initial target rendering device may be stopped.” Appx3148 ¶ 106 (quoting Appx3295 ¶ 173); *see also* Appx3295 ¶ 174 (providing another example in which playback at the rendering device ceases when playback is transferred to the mobile device). This is substantial evidence supporting the Board’s finding that, as part of Al-Shaykh’s process of transferring playback from a mobile device to a

playback device, the mobile device will stop playback. Indeed, this is the very essence of a “transfer.”

Instead of seriously grappling with these disclosures, Sonos focuses almost exclusively on its disagreement with the Board’s interpretation of a single, exemplary paragraph from Al-Shaykh (Appx3290 ¶ 132). Blue Br. 74-81. Sonos’s dispute is irrelevant to the substantial-evidence inquiry because this paragraph on its face only describes “an embodiment” and an “example,” Appx3290 ¶ 132, and thus does not limit Al-Shaykh’s above-described passages supporting the Board’s conclusion.<sup>9</sup>

Regardless, the Board provided a detailed explanation of why Sonos’s interpretation of paragraph 132 was wrong, and the plain language of paragraph 132 supports the Board’s conclusion. Sonos’s disagreement with the Board centered around paragraph 132’s disclosure of *when* the mobile device would begin or resume rendering media content relative to when playback transfer occurred. Appx46-48; Appx31-33. In its patent owner response, Sonos argued that in paragraph 132, “Al-

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<sup>9</sup> Sonos incorrectly states that “[t]here is no dispute” that paragraph 132 is the only description of how the mobile device handles its own playback. Blue Br. 74. As shown above, Dr. Bims and the Board explained the relevance of Al-Shaykh’s other disclosures. Likewise, Sonos’s allegation that the parties agree that paragraph 132 discloses “simultaneous playback,” *id.* (quoting Appx650, 41:6-8), is also irrelevant because Google repeatedly emphasized that the disclosure was exemplary. Appx650-652, 41:1-43:3.

Shaykh’s ‘mobile device’ *begins* (and/or *resumes*) rendering the ‘media content’ *after* transferring the ‘media content.’” Appx407 (third emphasis added) (quoting Appx3290 ¶ 132); Appx46. The Board disagreed, finding that the paragraph taught “the exact opposite” of this, i.e., that when playback transfer is enabled, “the mobile device continues or begins rendering the media content *and then* transfers the media content to the target rendering device where it continues to be rendered.” Appx47-48 (emphasis added).

The Board explained its reasoning in detail, and substantial evidence supports it. As the Board explained, this paragraph “addresses how the ‘PLAY/PAUSE’ state of the media application may be changed” when invoking playback transfer. Appx47-48; *see* Appx3290 ¶ 132 (“[T]he internal state [of the media application] may be set to ‘PLAY’ to indicate that media content is playing on the mobile device 11 or set to ‘PAUSE’ to indicate that the media playback is paused on the mobile device 11.”). When the application state is initially set to PAUSE and playback transfer is invoked, the application state is changed to PLAY. Appx47-48; *see* Appx3290 ¶ 132 (“*The user 12 may enable transfer of the media content to a target rendering device . . . when the media application has the internal state set to ‘PAUSE.’ In response, the media application may change the internal state from ‘PAUSE’ to ‘PLAY’ . . .*” (emphases added)). According to the Board, setting the state to PLAY causes playback to begin (or continue) at the mobile device *and then*

media content is transferred to the playback device where playback continues. Appx47-48. Based on this understanding, paragraph 132 is consistent with the previously described paragraphs of Al-Shaykh because, when playback is transferred to the new device, Al-Shaykh stops playback on the media device initially rendering the content (in this case, the mobile device). Appx48.

Sonos might disagree with the Board's interpretation,<sup>10</sup> but it is still a reasonable one. *See Shoes by Firebug*, 962 F.3d at 1371 (finding that, when the Board sides with one theory over another, the Court's "task is not to determine which theory we find more compelling" or "second-guess the Board's assessment of the evidence," but instead address "whether the conclusion adopted by the Board is supported by substantial evidence" (citation omitted)); *In re NuVasive, Inc.*, 842 F.3d at 1379-80 (noting that substantial evidence only requires showing "relevant evidence [that] a reasonable mind might accept as adequate to support a conclusion" (citation omitted)). Moreover, the Board was entitled to consider the evidence and reach its own conclusion. *See Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1074 (Fed. Cir. 2015) (finding the Board was entitled to "rely on its own reading" of the

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<sup>10</sup> In support of its interpretation, Sonos alleges that the functionality disclosed in paragraph 132 "*augments* the control device's playback by recruiting additional speakers to join alongside it[, which] enables the user to create a more immersive playback experience in a room with networked speakers, and to continue hearing or viewing content on the mobile device even if they momentarily moved out of the room." Blue Br. 75. Sonos does not cite evidence supporting this attorney argument.

reference); *Apple Inc. v. Corephotonics, Ltd.*, 81 F.4th 1353, 1360-1361 (Fed. Cir. 2023) (“The Board is also of course free to . . . weigh the evidence, and decide for itself what persuades it.”).

Finally, even if the Court finds the Board’s interpretation unreasonable, it should still affirm because any error would be harmless. *See Masimo Corp. v. Apple Inc.*, Nos. 2022-1631 to -1638, 2023 WL 5921622, at \*4 (Fed. Cir. Sept. 12, 2023) (“[E]ven if the Board erred by relying on these theories as part of its finding of adhesion as a motivation to combine, it was, at most, harmless error.”). As explained above, paragraph 132 is exemplary only, and the Board relied on other substantial evidence to show that a skilled artisan would have found it obvious to terminate playback at the mobile device when playback is transferred. Thus, the Court should affirm the Board’s finding that Al-Shaykh alone teaches or renders obvious this limitation to a skilled artisan.

**2. Substantial evidence supports the Board’s finding that Al-Shaykh and Phillips render obvious this limitation.**

Even if the Court finds that the Board erred regarding Al-Shaykh, it should affirm based on the combination of Al-Shaykh and Phillips. Sonos does not dispute the Board’s finding that Phillips discloses this limitation. Appx49; *see* Appx3148-3151 ¶¶ 107-114 (Dr. Bims explaining how Phillips discloses the limitation). Sonos only challenges the Board’s motivation for combining Phillips with Al-Shaykh for



a narrow reason: Al-Shaykh allegedly teaches away from the combination. Blue Br. 81-83. As explained below, substantial, undisputed evidence supports the Board's combination, and Sonos's teaching away argument fails.

The Board credited Google's evidence that there were at least three reasons to combine Phillips and Al-Shaykh relevant to this limitation. **First**, both references deal with similar devices and solve similar problems in those devices. Appx49-51 (quoting Appx155-157 (citing Appx3151-3153 ¶¶ 115-118; Appx3261, Fig. 11; Appx3263, 1:19-34; Appx3264, 3:18-42; Appx3273, Abstract; Appx3279 ¶¶ 4-5; Appx3283 ¶ 53; Appx3284 ¶ 78; Appx3285 ¶ 90)); Appx450-451. For example, the Board credited Google's argument and Dr. Bims's supporting testimony that both references "disclose methods to seamlessly transfer playback of media content from a control device to a playback device without delay and in a manner that the user can still control playback and conduct other tasks from the control device." Appx50 (quoting Appx157).

**Second**, Phillips provides additional details omitted from Al-Shaykh for terminating playback at the mobile device when transferring playback, and a skilled artisan would have looked to Phillips to determine what happens at Al-Shaykh's control device during transfer. Appx51 (quoting Appx157-158 (citing Appx3153-3154 ¶¶ 119-120; Appx3266, 7:28-42; Appx3280 ¶ 15; Appx3286 ¶¶ 94, 97)).

*Third*, incorporating Phillips’s playback termination functionality would improve Al-Shaykh’s system by providing users flexibility to perform other tasks on their mobile phone while playback continues on the rendering device. *Id.*

Sonos does not dispute (or even address) these findings or supporting evidence, which undo Sonos’s teaching away argument and are sufficient to affirm the Board’s determination that a skilled artisan would have combined the references. Google’s evidence demonstrated that both references disclose similar devices that solve similar problems. And it showed that a known technique used to improve one device (the functionality in Phillips terminating playback at the control device) would improve a similar device (Al-Shaykh) in a similar way. That is more than sufficient under *KSR* and this Court’s precedent. *E.g.*, *Unwired Planet*, 841 F.3d at 1003 (“[T]he Court stated that ‘if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious . . . .’” (quoting *KSR*, 550 U.S. at 417)); *accord Intel*, 61 F.4th at 1380-81.

The gist of Sonos’s argument is that Al-Shaykh *teaches away from* stopping playback because Al-Shaykh *does not disclose* stopping playback. Blue Br. 81-83. That is not the law: “A reference that ‘merely expresses a general preference for an alternative invention but does not criticize, discredit, or otherwise discourage investigation into’ the claimed invention does not teach away.” *Meiresonne v.*

*Google, Inc.*, 849 F.3d 1379, 1382 (Fed. Cir. 2017) (quoting *Galderma Lab's, L.P. v. Tolmar, Inc.*, 737 F.3d 731, 738 (Fed. Cir. 2013)). Indeed, Sonos does not even contend that Al-Shaykh criticizes, discredits, or discourages stopping playback—it simply contends that the limitation is missing from Al-Shaykh. This does not amount to a teaching away. See *Trs. of Columbia Univ. in City of New York v. Illumina, Inc.*, 842 F. App'x 619, 624 (Fed. Cir. 2021) (“Teaching away requires clear discouragement from implementing a technical feature.” (cleaned up) (citing *In re Ethicon, Inc.*, 844 F.3d 1344, 1351 (Fed. Cir. 2017))); *In re Katz Interactive Call Processing Pat. Litig.*, 639 F.3d 1303, 1321-22 (Fed. Cir. 2011) (noting that a reference teaches away if it discourages a combination).

Finally, Sonos is simply wrong to allege that “[t]he Board rejected Sonos’s teaching away argument only because it mistakenly believed paragraph 132 [of Al-Shaykh] already disclosed the sort of functionality that Phillips employed.” Blue Br. 82. To the contrary, the Board endorsed Google’s analysis explaining that a skilled artisan would have combined Phillips’s teaching of terminating playback with Al-Shaykh “to the extent that Al-Shaykh does not disclose this functionality.” Appx51 (quoting Appx157-158). It then rejected Sonos’s motivation-to-combine arguments. Appx51-52 (rejecting Sonos’s arguments at Appx410-414). Thus, Google’s and the Board’s rationale for the alternative Phillips ground was premised

on accepting as true Sonos's argument that Al-Shaykh does not disclose the recited functionality.

In summary, Sonos's teaching away argument fails, and the Court should affirm the Board's findings regarding the combination even if it disagrees with the Board's alternative finding that Al-Shaykh teaches or renders obvious the limitation.

## **VI. Conclusion**

For the foregoing reasons, substantial evidence supports the Board's findings, and Google respectfully requests that the Court affirm the Board's final written decision.

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Respectfully submitted,

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## **CERTIFICATE OF COMPLIANCE**

The foregoing brief complies with the relevant type-volume limitation of the Federal Rules of Appellate Procedure and Federal Circuit Rules because:

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